

Quality in practice: integrating routine collection of patient language data into hospital practice

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Accepted for publication 17 March 2013

Abstract

Quality problem. Timely identification of patients' language needs can facilitate the provision of language-appropriate services and contribute to quality of care, clinical outcomes and patient satisfaction.

Initial assessment. At the University Hospitals of Geneva, Switzerland, timely organization of interpreter services was hindered by the lack of systematic patient language data collection.

Choice of solution. We explored the feasibility and acceptability of a procedure for collecting patient language data at the first point of contact, prior to its hospital-wide implementation.

Implementation. During a one-week period, receptionists and triage nurses in eight clinical services tested a new procedure for collecting patient language data. Patients were asked to identify their primary language and other languages they would be comfortable speaking with their doctor. Staff noted patients' answers on a paper form and provided informal feedback on their experience with the procedure.

Evaluation. Registration staff encountered few difficulties collecting patient language data and thought that the two questions could easily be incorporated into existing administrative routines. Following the pilot test, two language fields with scroll-down language menus were added to the electronic patient file, and the subsequent filling-in of these fields has been rapid and hospital wide.

Lessons learned. Our experience suggests that routine collection of patient language data at first point of contact is both feasible and acceptable and that involving staff in a pilot project may facilitate hospital-wide implementation. Future efforts should focus on exploring the sensitivity and specificity of the proposed questions, as well as the impact of data collection on interpreter use.

Keywords: patient language data, quality of care, patient-provider communication, language barriers

Quality problem

Timely identification of patients' language needs can facilitate the provision of language-appropriate services, which contribute to quality of care, clinical outcomes and patient satisfaction for foreign-language-speaking patients [1]. Aggregate patient language data can contribute to effective planning of interpreter services by identifying the range of languages and number of interpreters needed, as well as budgetary requirements. Conversely, the lack of a standardized means to record patient language data can lead to missing or incomplete information,

misspelled language names and difficulty retrieving the information from the patient file.

The need for routine data collection on the language needs of patients has been clearly recognized in the USA. The Joint Commission on the Accreditation of Healthcare Organizations considers the provision of language-appropriate services to be an important quality and safety issue and began requiring hospitals to collect data on patients' primary oral and preferred written language in 2006 [2]. In 2009, the Institute of Medicine also recommended routine collection of language needs [3].

While standardization of patient language data is desirable, the specific approach selected must respond to the particular institution's information needs and patient characteristics [4]. Questions need to be field-tested to make sure they are feasible and acceptable to both patients and reception staff, and any potential problems must be identified and addressed.

Initial assessment

In Switzerland, a federal 'Migration and Health Strategy' aimed at improving the health of immigrants [5] is supporting the development of five centers of excellence or 'Migrant Friendly Hospitals (MFH)' across Switzerland [6], among which is the University Hospitals of Geneva (HUG). In the context of this project, an internal HUG working group was created with representation from the main clinical departments that identified the routine collection and recording of patient language data as a priority activity to be developed at the HUG.

Implementation

We conducted a pilot test of a procedure to collect patient language data at the first point of contact (registration or reception), in order to identify potential barriers and prepare the way for inclusion of patient language data in the existing electronic patient file.

Question selection

The first step was to choose data collection procedures that would be appropriate for our particular institutional context. We opted to collect data on (i) the patient's primary language, defined as the language the patient speaks and understands the best and (ii) one to two other languages in which the patient could comfortably communicate with medical personnel, based on the patient's self-assessment (see Box 1 for the script used by registration staff). Our choice of questions was based on several factors. First, there has been good experience in Switzerland with data collection on primary language. Since 1860, the Swiss population census has included a question about respondents' primary language, defined as the language in which a person thinks and which he/she speaks the best. Bilingual individuals are required to choose a single language [7]. Using the same question format would allow us to compare language characteristics of our patients to the larger population.

The objective of the second question was to determine whether patients whose primary language was not French could communicate comfortably either in French or in another common language (such as English, Spanish, Portuguese or Italian). Nearly 40% of the Geneva population is of foreign nationality [8] and about half the foreigners speak a language other than French as their primary language [9]. Although the HUG has access to a community interpreter bank run by the Geneva Red Cross [10], language diversity in Geneva is extensive and includes many 'rare' languages for

Box 1 Script proposed for collecting patient language data

Introduction:

'In order to make sure doctors and patients are able to communicate effectively with each other, we are asking all patients to indicate the languages they speak.'

If the patient speaks some French:

- (1) 'What language do you speak and understand the best?' (one response only)
'If the patient's response is something other than French':
- (2) 'Are there any other languages in which you could communicate comfortably with your doctor?' (0–2 responses)

If the patient does not understand French but is accompanied by a bilingual person (for example, a family member or interpreter):

- (1) Which language does the patient speak and understand the best? (one response only)
- (2) Are there any other languages in which the patient could communicate comfortably with his/her doctor? (0–2 responses)

If the patient does not understand French and is not accompanied by a bilingual person, try to identify their language:

- (a) By showing the patient the 'I Speak ...' list provided to you
- (b) By referring to the 'Languages by country' table provided to you, and reading the language names to the patient.

Place a check next to the appropriate boxes on the form provided to you,
Note your difficulties, observations or other remarks on the form.

which interpreters are not always available. In such situations, information about secondary languages that might be used to communicate with patients is useful to health care personnel.

We decided not to include a question about patient's self-assessed proficiency in the secondary languages, even though this has been widely recommended in the USA [3, 4]. We felt that such a question would require too much time/explanation on the part of registration staff and would not be easily integrated into our registration procedure. We also decided against asking patients whether they would like an interpreter, as we thought this would require significant explanation on the part of registration staff (since many patients are unaware of the service) and that patients might decline an interpreter out of politeness or fear of financial implications.

We felt that the two questions selected would be relatively easy to ask and to answer, would require little or no additional explanation on the part of administrative staff, and thus would reduce the likelihood that staff would skip the questions or answer them without consulting the patient. Scroll-down menus of languages could be easily included in the electronic patient file, further facilitating data registration, and would allow clinicians to rapidly identify whether or not a patient spoke French (and whether this was their primary or secondary language), and if not, what language to request from interpreter services.

Language data collection

Receptionists and triage nurses in nine clinical services were instructed to ask the two questions to each and every patient that visited their service during a 1-week period, and to record patients' responses on a paper form developed especially for the pilot project. The form contained a space for the date, two identical language checklists with 27 languages, a space to write in languages not found on the lists, and a space for any additional comments they wished to make. Because staff was initially worried about the possible extra work load associated with the pilot project, we limited the pilot to one week and let each service choose the dates of their participation (any one-week period between July and September 2010).

The nine clinical services that participated in the pilot included the following:

- (i) surgical outpatient clinic,
- (ii) pediatric outpatient clinic for immigrant children,
- (iii) multidisciplinary outpatient clinic for adolescents,
- (iv) obstetrics/gynecology service,
- (v) psychiatric outpatient clinic,
- (vi) main reception for general and specialty medicine outpatient consultations,
- (vii) adult emergency service,
- (viii) pediatric emergency service,
- (ix) general hospital admissions.

These services were selected to represent the general patient population at the hospital (general admissions, surgery, gynecology, general and specialty medicine, and emergency services) or because they expressed a particular interest in participating in the pilot project (pediatrics, adolescent medicine and psychiatry). Unfortunately, the forms for general hospital admissions were lost in the internal mail system and therefore are not included in our analysis. Although the pediatric outpatient clinic for immigrant children is small and saw few patients during the pilot test week, we included their responses in the final analysis. The first author met with staff of each of the participating services to explain the objectives of the pilot test, explain how to collect and record the language data, and to answer any questions.

Once language data collection was completed, the first author re-visited each service to gather the data collection forms and where possible discuss with staff who had participated in data collection about their general impressions/suggestions for improvement. These discussions were informal

and often took place at the registration desk during work hours. Feedback was also obtained from supervisors of registration staff. The purpose of these discussions was to identify any important problems or issues, without quantifying responses. During these discussions, the staff were asked to estimate how long it took them to ask the two questions to patients and whether they felt constrained by time pressures; whether they thought patients had difficulty responding or experienced embarrassment or mistrust due to the language questions; and whether they had any suggestions for facilitating systematic collection of patient language data. The first author noted down participants comments, suggestions and difficulties but without quantifying responses or attributing responses to particular individuals. The objective of these conversations was simply to identify potential issues/problems that might need to be addressed as patient language data collection was expanded to the rest of the hospital. We were not concerned with quantifying their frequency and distribution across the hospital.

The participating services expressed interest in receiving feedback on the linguistic diversity of their patients, and although the data cannot be considered representative of patients in their services nor in the hospital at large, we did feel it was an excellent opportunity to show the utility of the language data they collected and to highlight the linguistic diversity at our hospital. Therefore, we calculated (for each service and for the eight services combined):

- (i) The proportion of patients whose primary language was French, as well as the primary languages of non-Francophone patients,
- (ii) The proportion of patients who listed French as a secondary language,
- (iii) The proportion of patients who spoke no French at all (those for whom French was neither a primary nor a secondary language), as well as the primary languages of these patients,
- (iv) The proportion of non-French-speaking patients who said they could communicate easily in one of the following languages (languages spoken by many registration and health care staff): English, Portuguese, Spanish, Italian.

Language data were entered automatically via a teletext machine and analyzed using SPSS version 17.

Evaluation

Perceptions of the feasibility of systematic collection of patient language data

Staff across the eight services said that in the majority of cases, language data collection was quick and simple, taking barely a minute to accomplish. They were able to collect the language data most often by speaking French to the patient or to an accompanying interpreter or family member. Sometimes staff spoke to patients in other languages, usually English, Spanish, Portuguese or Italian. No examples were given of situations where the patient's language could not be identified due to a

language barrier. Participants also found helpful the 'I speak' list [11] and languages-by-country table [12] provided to them. The initial list of 27 languages proposed on the data collection form was appropriate but too restrictive, requiring staff to often write the patient's language on the form, which resulted in a number of spelling inconsistencies. A few staff found the paper-based approach to be cumbersome but believed language data collection would be quick and straightforward once it was included in the electronic patient file with a scroll-down menu. Others admitted to skipping the language data questions when the line of patients was long or there were emergency situations to manage, due to time constraints and the perception that language data collection was not a priority in these situations, but we have no data on how frequently this occurred. When asked how patient language data collection might be improved, a few participants suggested we create a direct link to the list of Red Cross interpreters at the point of data entry in the electronic file, which would save staff considerable time and effort when they needed to organize an interpreter.

With regards to patients' reactions, receptionists and nurses reported no negative responses from patients when asking for language data and several staff reported that patients were often quite pleased to be asked what languages they spoke. However, there was occasionally some confusion around the notion of 'primary language': some patients thought we wanted to know what language they spoke most often in Geneva (which might be something other than their mother tongue). In addition, a few bilingual patients were reluctant to choose a single language as their primary language.

Linguistic diversity in the HUG

We analyzed the language data collected from 2428 patients in eight clinical services at the HUG over a three-month time period (Table 1). Overall, 55.6% of patients said that French was their primary or 'best' language. Another 31.7% said they could communicate easily in French with their health care providers. One out of every eight patients (12.6%) spoke no French at all.

Seventy-four different languages were recorded (Table 2). Among those patients who spoke no French at all, ~70%

Table 1 Number of patients surveyed in each clinical service

Service	N	%
Surgical outpatient clinic	870	35.8
General/specialty medicine outpatient consultations	700	28.8
Adult emergency service	340	14.0
Obstetrics/gynecology	317	13.1
Adolescent clinic	91	3.7
Psychiatric outpatient clinic	58	2.4
Pediatric emergency service	43	1.8
Pediatric outpatient clinic for immigrant children	9	0.4
Total	2428	100.0

reported speaking one of the following languages, either as their primary language or as a foreign language: English, Spanish, Portuguese or Italian (Table 3).

This is potentially useful information for health care personnel, many of whom are bilingual in these languages [13]. However, it is important to note that while for non-French-speaking patients who reported speaking Spanish, Portuguese or Italian, these tended to be their primary language; this was not the case for many patients who reported speaking English. We know from experience that English is often used as an intermediary language between doctors and their non-Francophone patients. Where English is the primary language of neither the doctor nor the patient, this strategy is likely to be inadequate.

Incorporation of language data into the electronic patient file

Based on the results of the pilot test, a formal request was made to the hospital team responsible for modifying the electronic patient file. In October 2011, two data fields were added to the administrative data portion of the electronic patient file: 'Primary language' and 'Other language', each with an 'additional information' icon that explains what data to collect from patients and a scroll-down menu of 86 languages to choose from. We decided to allow for only one secondary language, with priority given to French if the patient mentions several. A direct link to the list of Red Cross interpreters was also included next to the data fields.

All administrative staff were informed of the new data fields via a hospital-wide newsletter at the end of October, and a follow-up email was sent in December by the first author to heads of registration staff in each clinical department, inviting

Table 2 Patients' primary languages (all services combined)

Language	N	%	Cumulative %
French	1351	55.6	55.6
Spanish	233	9.6	65.2
Portuguese	203	8.4	73.6
English	105	4.3	77.9
Italian	101	4.2	82.1
Arabic	84	3.5	85.6
German	52	2.1	87.7
Albanian	45	1.9	89.6
Turkish	23	0.9	90.5
Russian	20	0.8	91.3
Bosnian	12	0.5	91.8
Mongolian	12	0.5	92.3
Serbo croatian	12	0.5	92.8
Somalian	12	0.5	93.3
Tamil	11	0.5	93.8
Lingala	10	0.4	94.2
Other	142	5.8	100.00
Total	2428	100.00	100.00

Table 3 Languages spoken by non-French-speaking patients ($N = 307$)^a

Language	Spoken as primary language, N (%)	Spoken as secondary language, N (%)	Overall, N (%)
English	40 (13.0)	64 (20.8)	104 (33.9)
Spanish	73 (23.8)	6 (1.9)	79 (25.7)
Portuguese	32 (10.4)	2 (.6)	34 (11.1)
Italian	8 (2.6)	6 (1.9)	14 (4.6)
Speaks none of the above			93 (30.3)

^aTotals do not add up to 307 as patients could give more than one secondary language.

them to provide feedback and report any difficulties encountered with the new data fields.

By mid-January, language data had been registered for 38,591 patients. Based on the total number of patients seen at the HUG in 2011, this represents close to 100% of patients registered since the data fields were created. No problems with language data collection have been reported by head of registration staff, and initial analyses of hospital-wide patient language data are similar to pilot project results: 60% of patients identified French as their primary language, another 32% indicated French as a secondary language they could speak comfortably with their doctor and 8% spoke no French at all. Seventy-four languages were identified; the top four non-French primary languages are Portuguese, Spanish, Italian and English.

Lessons learned

We conducted a simple and rapid pilot test of a procedure for systematic collection of patient language data, prior to its hospital-wide implementation. Once implemented across the hospital, uptake of the new procedure was immediate.

The pilot test allowed us to explore whether the two-question method proposed was both feasible and appropriate for our hospital and to identify and address any potential problems before full-scale implementation. Input and support from pilot project participants also gave us confidence as we expanded the procedure to the rest of the hospital.

Newly available data on language diversity in the hospital have been helpful in raising awareness about language assistance needs and are now regularly presented in new staff orientations as well as in continuing education seminars. Such data have also been useful for initiating projects such as the translation of important hospital documents into the main languages spoken by non-Francophone patients.

Incorporating routine collection of patient language data has been surprisingly easy at our hospital. This is most certainly in part due to the favorable environment created by the

MFH project, which helped strengthen institutional support and credibility for language data collection. We also feel that involving intended users of the new system in a small pilot project helped to pave the way towards institution-wide implementation and acceptance.

Nonetheless, a number of issues remain that need to be addressed. We know that data were not collected from some patients due to time constraints and that the forms were sometimes filled out by receptionists without querying patients directly. We do not know how often this occurs, and we will need to continue to monitor patient language data collection to identify and address barriers to accurate data collection.

Another issue concerns data collection on patients' secondary languages. While this information is potentially useful for clinicians, we have no measure of patients' language proficiency beyond self-reported comfort level. Cheng et al. [14] found that Hispanic patients who spoke Spanish at home, regardless of whether they said they were comfortable speaking English, were less likely to receive recommended health care and suggested that self-assessed comfort with the host-country language may not accurately identify language barriers. Other studies have also suggested that some linguistic groups tend to overestimate their language ability [15, 16]. Ideally, we will need to evaluate the sensitivity and specificity of our questions in identifying patients who need language assistance.

Finally, systematic collection of patient language data alone will not guarantee appropriate language assistance. Many staff at our hospital speak other languages besides French, and previous surveys at our hospital [13, 17] indicate that, as elsewhere, health care providers prefer to 'get by' by using their own (sometimes rudimentary) language skills to communicate directly with patients, or by calling on non-clinical staff to act as ad hoc interpreters [18–21].

Systematic collection of patient language data is but one step towards eliminating language-based disparities in health care. Quality improvement efforts will also need to focus on staff awareness-raising of the impact of language barriers on health care quality and patient safety, on the provision of language assistance services that respond to provider and institutional needs and constraints, and on institutional directives to ensure use of qualified interpreters for all medically important communication with foreign-language-speaking patients. Nonetheless, we feel that developing and piloting a data collection procedure that takes into consideration the institution's specific needs and constraints is a useful step towards eliminating language barriers in health care and their consequences.

Acknowledgements

We are especially grateful to the clinical services that accepted to participate in the pilot project, and who provided us with useful feedback on the proposed language data collection procedure. We also thank the Clinical Research Platform of the Child and Adolescent Department for data entry and initial analyses of results, and the Methodological Support Unit of the HUG Center for Clinical Research for their additional

data analyses. Finally, we thank the members of the Interdepartmental working group on Immigrant Health, for their useful comments and suggestions on the project.

References

- Flores G. The impact of medical interpreter services on the quality of health care: a systematic review. *Med Care Res Rev* 2005;**62**:255–99.
- Joint Commission. Requirements Related to the Provision of Culturally Competent Patient-Centered Care: Hospital Accreditation Program. http://www.jointcommission.org/assets/1/6/2009_CLAS_RelatedStandardsHAP.pdf (10 January 2012, date last accessed).
- Institute of Medicine. Race, Ethnicity, and Language Data: Standardization for Health Care Quality Improvement. <http://ahrq.hhs.gov/research/iomrace/report/> (10 January 2012, date last accessed); 2009.
- Hasnain-Wynia R, Pierce D, Haque A *et al.* Health Research and Educational Trust Disparities Toolkit. www.hret.org Chicago, IL: HRET (10 January 2012, date last accessed); 2007.
- Swiss Network of Health Promoting Hospitals and Health Services: MFH Section. Kriterien Migrant Friendly Hospitals. <http://www.healthhospitals.ch/fr/section-mfh/28-arbeitsgruppen-mfh/94-mfh-kriterien.html> (10 January 2012, date last accessed); 2007.
- Swiss Federal Public Health Office. Migrant Friendly Hospitals Project. <http://www.bag.admin.ch/themen/gesundheitspolitik/07685/07691/07830/10941/index.html?lang=en> (10 January 2012, date last accessed).
- Office cantonale de la statistique (OCSTAT). Statistiques cantonales: langues et religions: méthodologie. http://www.geneve.ch/statistique/domaines/01/01_05/methodologie.asp#1 (10 January 2012, date last accessed).
- Office cantonale de la statistique (OCSTAT). Communiqué de presse: Près de 40% de la population habitant dans le canton de Genève en 2000 est de nationalité étrangère. <http://www.ge.ch/statistique/tel/compresse/2005/cp-2005-40.pdf> (10 January 2012, date last accessed).
- Office cantonale de la statistique (OCSTAT). Population résidante du canton de Genève selon l'origine et la langue principale, en 2000. http://www.geneve.ch/statistique/domaines/01/01_05/tableaux.asp#1 (10 January 2012, date last accessed).
- Service Interprétariat Communautaire de la Croix Rouge Genevoise. <http://www.croix-rouge-ge.ch/index.php?page=interpretariat-communautaire> (10 January 2012, date last accessed).
- Ohio Office of Criminal Justice Services. Language Identification Guide. http://www.lep.gov/resources/ocjs_languagecard.pdf (10 January 2012, date last accessed); 2006.
- UNESCO. World Culture Report. Paris: UNESCO Publishing, 2000.
- Bischoff A, Hudelson P. Communicating with foreign language-speaking patients: is access to professional interpreters enough?. *J Travel Med* 2010;**17**:15–20.
- Cheng EM, Chen A, Cunningham W. Primary language and receipt of recommended health care among Hispanics in the United States. *J Gen Intern Med* 2007;**22**(Suppl 2):283–8.
- McArthur EK. *Characteristics of Persons in the United States by Language Spoken: 1979 and 1989*. Washington, DC: National Center for Education Statistics, 1991.
- Zun LS, Sadoun T, Downey L. English-language competency of self-declared English-speaking Hispanic patients using written tests of health literacy. *J Natl Med Assoc* 2006;**98**:912–7.
- Hudelson P, Vilpert S. Overcoming language barriers with foreign-language speaking patients: a survey to investigate intra-hospital variation in attitudes and practices. *BMC Health Serv Res* 2009;**9**:187.
- Diamond LC, Schenker Y, Curry L *et al.* Getting by: underuse of interpreters by resident physicians. *J Gen Intern Med* 2009;**24**:256–62.
- Elderkin-Thompson V, Silver RC, Waitzkin H. When nurses double as interpreters: a study of Spanish-speaking patients in a US primary care setting. *Soc Sci Med* 2001;**52**:1343–58.
- Gray B, Hilder J, Donaldson H. Why do we not use trained interpreters for all patients with limited English proficiency? Is there a place for using family members? *Aust J Prim Health* 2011;**17**:240–9.
- Lee KC, Winickoff JP, Kim MK *et al.* Resident physicians' use of professional and nonprofessional interpreters: a national survey. *JAMA* 2006;**296**:1050–3.